REMARKS

In view of the preceding amendments and following remarks, reconsideration of the present application is respectfully requested.

Claims 1-18 were pending in the Application, but only Claims 1-17 were addressed in the Examination. So a telephone call was made to Examiner Issing on 2/18/2004 to clarify this and the grouping of Claims 1-13 in the double patenting rejection. The conclusion of the call was that Claims 1-18 were actually being rejected, and only Claims 1-12 were to be included in the double patenting rejection. By this response, claims 1 and 11-13 are amended. No new matter is believed to be added by these amendments.

Claims 1-12 were rejected under the doctrine of obviousness-type double patenting over Claims 1-6 of United States Patent 6,163,294. In response, this Applicant is filing herewith a Terminal Disclaimer.

Claims 1-18 were rejected under 35 USC §103(a) as being unpatentable over Liessner, et al., in view of Osterdock, et al., and Ingensand. Liessner, et al., is cited as teaching an EDM "substantially as claimed". First, Claims 1-18 recite methods. Liessner, et al., only teaches an apparatus.

Second, Liessner, et al., actually teaches a LIGHT BEAM DISTANCE ENCODER that uses a free running reference oscillator 12. The accuracy of the electronic distance measurement is wholly dependent on the accuracy of reference oscillator 12. However, the claimed present invention teaches a method to train or synchronize the local oscillators in such devices with a far more accurate time/frequency standard imported in real-time from elsewhere. Claim 1, e.g., recites this particular crucial difference with the first three elements. Claim 1 calls for (1) substantially continuously receiving from at least one orbiting GPS satellite radio signals with timing information controlled by an atomic clock on board said satellite, (2) constantly providing a global positioning system (GPS) receiver with a navigation computer for maintaining tracking of said radio signals and for deriving precise timing information from said radio signals, and (3) persistently providing a local reference oscillator with a timing signal based on said derived precise time information. Claim 1 summarizes the benefit of the claimed unique combination: "wherein, the step of measuring provides a signal time-of-flight measurement with an accuracy derived from said precise timing information in said timing signal and from which a similarly accurate distance-to-target is computed."

The statement in the Office Action that, Liessner, et al., teach an EDM "substantially as claimed" is therefore unsupportable.

The Office Action admits that Liessner, et al., fail to teach controlling the local reference oscillator by a more precise external standard. The Office Action then simply uses hindsight in pointing to Osterdock, et al., and alleges "all secondary frequency sources require periodic calibrations". However, Claims 1-18 do not recite "periodic" calibrations. Periodic calibrations are well known to artisans to be ones that are made manually by certified technicians in shops or on certified ranges. What is recited in Claims 1-18 is far different and an artisan would not combine the references and even if done so, would not realize the claimed invention.

Amended Claims 1-18, recite a method wherein the GPS receiver does not receive periodic calibrations in the ordinary sense. The claimed method is actually real-time training, control, and synchronization of the EDM reference by the GPS timing signals. Therefore, "substantially continuously", "constantly", "persistently", and "permanently" are added to reflect the dedicated way the GPS and EDM are combined. In systems incorporating the claimed method, any periodicity would occur only accidentally and unintentionally when all signals from all GPS satellite transmissions were lost and

not being tracked in real-time. The word "calibrate" as was used in the claims, in hindsight, may not be an entirely precise term. Such may imply a periodic checking and adjustment to a standard. However, the invention provides a constant and continuous frequency and timing synthesis from an external standard that is in near constant communication and in real-time. Therefore the claims are amended to delete the words "calibrate" and "calibration".

Ingensand was cited as teaching "that it is known in the art of surveying using EDM's to integrate GPS therewith in order to survey remote points...". But Ingensand only really teaches independent satellite receiver 1 and range finder 2 (Fig. 3) that are commonly controlled by a data and command unit 13. The function and purpose of the data and command unit 13 is not detailed. There is no suggestion or teaching on the subject of using GPS signals to improve the range finder accuracy.

The statements of motivation to make the inventive combinations in the Office Action are general and subjective. The Office Action states that "the prior art teaches that it is well known to drive EDM's using reference oscillators". This misses the point. The claimed present invention continuously drives the EDM reference oscillators with GPS timing and frequency derivatives. None of the

cited prior art, alone or in combination, teach such as set forth in Claims 1-18.

Accordingly, in view of the preceding amendments and remarks, it is respectfully submitted that the pending application, with pending claims 1-18, is in condition for allowance and such action is respectfully requested.

Should the Examiner be of the opinion that a telephone conference with Applicant's attorney would expedite matters, he is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Dated: 03/04/2004

By: _____
Thomas E. Schatzel
Reg. No. 22,611

LAW OFFICES OF THOMAS E. SCHATZEL
A Professional Corporation
16400 Lark Ave., Suite 240
Los Gatos, California 95032
Telephone : (408) 358-7733
Facsimile No.: (408) 358-7720

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450 on 03/04/2004
(Date of Deposit)

THOMAS E. SCHATZEL
Name of applicant, assignee, or Registered Rep.

_____ 3/4/04
Signature Date